



# IT'S A FACT

## SELECTING THE PROPER HAND TOOLS CAN MAKE YOUR WORK SAFER AND EASIER

Hand tools are designed to extend and reinforce the range, strength, and effectiveness of a person's upper limbs. However, poorly designed tools or risk factors—such as awkward positions, mechanical compression, vibration, and forceful exertions—can lead to injuries, accidents, and work-related musculoskeletal disorders (WMSDs).

Selecting the proper tool based on the task and worker's characteristics (e.g., hand dimensions and strength) significantly reduces the risk of WMSDs and ultimately will result in increased productivity.

### Tips for Selecting Hand Tools

#### *Tools used for power require high force.*

- For single-handle tools, select a tool that feels comfortable with a handle diameter of 1¼ to 2 inches.
- For double-handle tools, like pliers, select a tool with a grip span that is at least 2 inches when fully closed and no more than 3½ inches when open.
- For tasks requiring high force, select a tool with a handle length longer than the widest part of your hand (about 5 inches).

#### *Tools used for precision or accuracy require low force.*

- For single-handle tools used for precision tasks, select a tool with a handle diameter of ¼ to ½ inch.



Handle with proper diameter.



Handle length longer than width of hand.

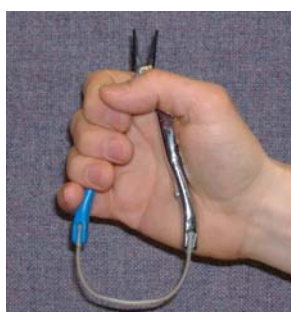


Small diameter handle for precision tasks.

- For double-handle tools used for precision tasks, such as pliers, select a tool with a grip span that is not less than 1 inch when fully closed and no more than 3 inches when fully open.
- For double-handled pinching, gripping, or cutting tools, select a tool handle that is spring loaded.
- Select a tool that allows you to maintain a straight wrist posture.



Tweezers for precision tasks.



Spring loaded pliers.



Bent angle knife for vertical cutting.

- Select a tool that can be used by both hands.

